

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1. (Original) A clean room ceiling light fixture, comprising:
 - (a) a sealed housing having a downwardly-directed light emitting aperture;
 - (b) a heat sink fixed within and spaced from an internal wall of said housing to define a cable raceway between said heat sink and said housing;
 - (c) a plurality of light-emitting diodes mounted within said housing on said heat sink, each one of said light-emitting diodes having a lens for directing light emitted by said one of said light-emitting diodes through said aperture into said clean room; and,
 - (d) a power supply for applying drive current to said light-emitting diodes.

2. (Original) A clean room ceiling light fixture as defined in claim 1, each one of said light-

emitting diodes further having a reflector for directing light emitted by said one of said light-emitting diodes through said aperture into said clean room.

3. (Original) A clean room ceiling light fixture as defined in claim 1, further comprising an anti-reflective coating on each one of said lenses.
4. (Original) A clean room ceiling light fixture as defined in claim 2, further comprising an anti-reflective coating on each one of said reflectors.
5. (Original) A clean room ceiling light fixture as defined in claim 2, wherein said reflectors are formed of a high refractive index material.
6. (Original) A clean room ceiling light fixture as defined in claim 5, wherein said high refractive index material is polycarbonate.
7. (Original) A clean room ceiling light fixture as defined in claim 2, further comprising, for each one of said lenses and an adjacent one of said

reflectors, a refractive index matching compound applied between said one of said lenses and said adjacent one of said reflectors.

8. (Original) A clean room ceiling light fixture as defined in claim 6, wherein said refractive index matching compound is an elastomer.
9. (Original) A clean room ceiling light fixture as defined in claim 2, wherein said reflectors are formed of a spectrally selective filter material.
10. (Original) A clean room ceiling light fixture as defined in claim 5, wherein said spectrally selective filter material is a deep dyed polyester.
11. (Original) A clean room ceiling light fixture as defined in claim 5, wherein said spectrally selective filter material is a spectrally selective thin film filter material.
12. (Original) A clean room ceiling light fixture as defined in claim 1, further comprising, a

holographic diffusion lens for uniformly distributing through said aperture said light emitted by said light-emitting diodes.

13. (Original) A clean room ceiling light fixture as defined in claim 12, wherein said holographic diffusion lens further comprises a structured surface prismatic film.
14. (Original) A clean room ceiling light fixture as defined in claim 1, further comprising, a variable transmissivity filter for uniformly distributing through said aperture said light emitted by said light-emitting diodes.
15. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said ceiling has an H-Bar configuration and wherein said housing is sized and shaped for snap-fit engagement within said H-Bar configuration.
16. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said housing is

removably magnetically attachable to said clean room ceiling.

17. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said housing is removably adhesively attachable to said clean room ceiling.
18. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said power supply further comprising an uninterruptible power supply.
19. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said power supply further comprises an in-line DC-DC converter coupled between a high voltage DC power supply and said fixture.
20. (Original) A clean room ceiling light fixture as defined in claim 18, wherein said power supply further comprises an in-line DC-DC converter coupled between said uninterruptible power supply and said fixture.

21. (Original) A clean room ceiling light fixture as defined in claim 18, wherein said uninterruptible power supply is located at a remote distance from said fixture.
22. (Original) A clean room ceiling light fixture as defined in claim 20, wherein said uninterruptible power supply is located at a remote distance from said fixture.
23. (Original) A clean room ceiling light fixture as defined in claim 19, wherein said DC-DC in-line converter is located closely proximate to said fixture.
24. (Original) A clean room ceiling light fixture as defined in claim 20, wherein said DC-DC in-line converter is located closely proximate to said fixture.
25. (Original) A clean room ceiling light fixture as defined in claim 22, wherein said DC-DC in-line converter is located closely proximate to said fixture.

26. (Original) A clean room ceiling light fixture as defined in claim 1, wherein said power supply further comprises a regulator for regulating said drive current as a function of time.
27. (New) A clean room ceiling light fixture as defined in claim 26, further comprising a light sensor located in said clean room and electrically connected to said regulator, said light sensor producing an output signal representative of light intensity near said light sensor, and wherein said regulator further regulates said drive current as a function of said output signal.
28. (New) A clean room ceiling light fixture as defined in claim 26, further comprising a light sensor located in said clean room and electrically connected to said regulator, said light sensor producing an output signal having a magnitude representative of light intensity near said light sensor, and wherein said regulator further regulates said drive current in inverse proportion to said output signal magnitude.

29. (New) A clean room ceiling light fixture as defined in claim 1, further comprising a programmable controller electrically connected between said power supply and said light-emitting diodes, said programmable controller for programmatically regulating said drive current as a function of time.

30. (New) A clean room ceiling light fixture as defined in claim 1, further comprising a programmable controller electrically connected between said power supply and said light-emitting diodes, said programmable controller for programmatically regulating said drive current as a function of time to maintain substantially constant light flux output of said light-emitting diodes.